

TRAFFIC SIGNAL MAINTENANCE TECHNICIAN

DEFINITION

Under general supervision performs installation, maintenance and repairs to electronically sophisticated traffic control systems and to other electrical equipment and systems throughout City facilities. Performs other related work as required.

DISTINGUISHING FEATURES

This is a journey level classification assigned to the traffic signal station maintenance specialty. Incumbents are required to have a thorough knowledge of the maintenance and repair of traffic signal and traffic controlling equipment gained through formal education in electrical or electronic trade school, or from considerable and varied experience in working with the installation, maintenance and repair of electric and electronic traffic control devices.

EXAMPLES OF DUTIES

The following list of duties is intended only to describe the various types of work that may be performed and the level of technical complexity of the assignment(s) and is not intended to be an all-inclusive list of duties. The omission of a specific duty statement does not exclude it from the position if the work is consistent with the concept of the classification or is similar or closely related to another duty statement.

Reasonable accommodations may be made to enable individuals with disabilities to perform these essential functions.

Essential Duties

1. Maintains and repairs traffic signal systems including wiring, conduits, signal poles, controllers, electronic switching, equipment and vehicle detection.
2. Makes continuous and detailed field checks to locate trouble or causes of failure; adjusts electronic detectors (i.e. vehicle actuated) and time controllers (i.e. fixed time); replaces signal lamps; checks preemptors and time clocks; cleans signal faces and reflectors; repairs faulty parts (i.e. modules and flashers).
3. Repairs signal pole knock-downs.
4. Installs and maintains electrical and mechanical equipment in City facilities.
5. Troubleshoots electrical problems and failures in City facilities.
6. Operates and maintains electric and electronic measuring devices such as Volt-Ohm meters; operates welding equipment such as Arc and Oxy-Acetylene welders.
Drives and operates specialized vehicular equipment.
7. Prepares and maintains reports and records such as inventory records, damage reports and traffic signal maintenance records.
8. May provide lead direction and training for subordinate employees.

WORKING CONDITIONS

- Work is primarily performed outdoors on City streets with regular exposure to varying weather conditions including heat, cold, rain, wind, and humidity.
- Frequent exposure to electrical and mechanical hazards, noise, dust, and fumes during traffic signal maintenance tasks.
- Travel by City vehicle within City limits to City work sites, locations, and meetings to conduct work.
- Work at heights to access traffic signal equipment, lighting, conduit, or wiring.
- May work alone or in proximity to others depending on task assignments.
- Required to wear appropriate personal protective equipment (PPE) as needed for various tasks.
- Subject to occasional emergency call-outs, including evenings, weekends, and holidays.

PHYSICAL DEMANDS

- Must possess physical strength and stamina to perform moderate to heavy physical labor for extended periods.
- Standing, walking, bending, stooping, crouching, climbing ladders, kneeling, and reaching overhead or below the waist.
- Lifting, carrying, pushing, and pulling tools, equipment, and materials typically weighing up to 50 pounds; heavier lifting may be required with assistance.

- Seeing to inspect detailed work and read instructions, gauges, or electronic displays.
- Dexterity of hands and fingers coordination to operate hand and power tools, computer equipment, and precision instruments.
- Hearing and speaking to hear alarms, signals, or verbal instructions in a noisy environment.
- Ability to work in confined spaces, at height, and outdoors in varying weather conditions.

EMPLOYMENT STANDARDS

Education/Experience

Any combination equivalent to education and experience likely to provide the required knowledge and abilities. A typical way to obtain the knowledge and abilities would be:

Education: Equivalent to graduation from high school supplemented by courses in electricity and electronics.

Experience: Progressively responsible experience either in the skilled maintenance and repair of solid state control systems and equipment

Knowledge

Knowledge of electrical and electronic theory; electrical equipment repair and maintenance; tools and equipment used in the repair and maintenance of electrical and electronic equipment; maintenance and repair techniques for traffic signal and control devices and safe work practices and procedures.

Ability

Ability to troubleshoot and install traffic signal equipment, and systems; plan and complete work involving conduit and wiring in accordance with national standards; repair and test electronic equipment; operate heavy equipment, and electric and electronic measuring devices; install and operate signalized computer systems; troubleshoot and repair microprocessor based control and communication equipment; diagnose electronic failures to the component level; work in high places; operate specialized vehicular equipment; interpret electrical codes and regulations; read and interpret blue prints, maps and drawings; maintain accurate records and prepare reports; communicate effectively; establish and maintain effective working relationships with employees and the general public; provide lead direction and training to subordinate employees.

Special Requirements

Willingness and ability to respond to after-hours emergency calls as required.

Other Requirements

Possession of an International Municipal Signal Association (IMSA) Level I Certification for Signal Technician or the ability to obtain within one year of employment.

Possession of a valid Class B State of California Driver's License (or possession of a valid Class C license at the time of employment and the ability to obtain Class B within six months of employment) and a satisfactory driving record as conditions of initial and continued employment. Employees in positions requiring a Class B license are subject to provisions of the Department of Transportation's drug and alcohol testing program.